Amendments to the claims (this listing replaces all prior versions):

1. (original) An active noise reduction (ANR) headset system comprising:

a headset circuitry receiving an input voltage; and

a power supply providing the input voltage to the headset circuitry, the power supply comprising:

a direct current (DC) voltage source supplying power; and

a voltage converter circuit converting the power to the input voltage supplied to the headset circuitry, the voltage converter circuit varying the input voltage in response to changes to a headset load current drawn by the headset circuitry from the power supply.

2. (original) The system of claim 1, further comprising:

a shutoff circuit placing the headset circuitry in a lower power consumption state when the headset load current falls below a threshold value for a predetermined amount of time.

3. (original) The system of claim 1, further comprising:

a shutoff circuit terminating the input voltage to the headset circuitry when the headset load current falls below a threshold value for a predetermined amount of time.

4. (original) The system of claim 2, wherein the shutoff circuit further comprises:

a band pass filter having an input signal based on a measured headset load current and an output signal that is compared to the threshold value.

5. (original) The system of claim 4, wherein the shutoff circuit comprises:

a comparator comparing the threshold value to a filter output based on the measured headset load current; and

a timer reset circuitry sending a signal to place the headset circuitry in a lower power consumption state.

6. (original) The system of claim 1, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry linearly, in proportion to changes in the headset load current.

7. (original) The system of claim 1, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry in discrete steps in response to changes in the headset load current.

8. (original) The system of claim 1, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry at a first rate in response to increasing headset load current and a second rate for decreasing headset load current.

9. (original) The system of claim 1, further comprising:

a voltage control loop circuitry monitoring the headset load current and the input voltage, the voltage loop circuitry providing a feedback signal to the voltage converter circuitry.

10. (original) The system of claim 1 wherein the headset circuitry comprises:

an ANR circuit receiving a signal from a microphone positioned in an earcup and including a feedback loop to actively reduce the signal;

a first voltage regulator limiting a voltage supplied to the ANR circuit and to an amplifier to a first predetermined voltage; and

a second voltage regulator limiting the input voltage of the headset circuitry to a second predetermined voltage.

11. (original) The system of claim 1, further comprising an energy storage device in a parallel circuit with the DC voltage source.

12. (original) The system of claim 11, wherein the energy storage device is a capacitor.

13. (original) An active noise reduction (ANR) headset system comprising:

a headset circuitry receiving an input voltage; and

a power supply providing the input voltage to the headset circuitry, the power supply comprising:

a direct current (DC) voltage source supplying power; and

a voltage converter circuit converting the power to the input voltage supplied to the headset circuitry, the voltage converter circuit varying the input voltage in response to changes to a headset load current drawn by the headset circuitry from the power supply; and

a shutoff circuit placing the headset circuitry in a lower power consumption state when the headset load current falls below a threshold value for a predetermined amount of time.

14. (original) The system of claim 13, wherein placing the headset circuitry in a lower power consumption state comprises terminating the input voltage to the headset circuitry.

15. (original) The system of claim 13, further comprising:

a voltage control loop circuitry monitoring the headset load current and the input voltage, the voltage control loop circuitry providing a feedback signal to the voltage converter circuitry.

16. (original) The system of claim 13, wherein the shutoff circuit further comprises:

a band pass filter having an input signal based on a measured headset load current and an output signal that is compared to the threshold value.

17. (original) The system of claim 16, wherein the shutoff circuit comprises:

a comparator comparing the threshold value to a filter output based on the measured headset load current; and

a timer reset circuitry sending a signal to place the headset circuitry in a lower power consumption state.

18. (original) The system of claim 13, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry linearly, in proportion to changes in the headset load current.

19. (original) The system of claim 13, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry in discrete steps in response to changes in the headset load current.

20. (original) The system of claim 13, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry at a first rate in response to increasing headset load current and a second rate for decreasing headset load current.

21. (original) The system of claim 13 wherein the headset circuitry comprises:

an ANR circuit receiving a signal from a microphone positioned in an earcup and including a feedback loop to actively reduce the signal;

a first voltage regulator limiting a voltage supplied to the ANR circuit and to an amplifier to a first predetermined voltage; and

a second voltage regulator limiting the input voltage of the headset circuitry to a second predetermined voltage.

22. (original) The system of claim 13, further comprising an energy storage device in a parallel circuit with the DC voltage source.

23. (original) The system of claim 22, wherein the energy storage device is a capacitor.

24. (original) An active noise reduction (ANR) headset system comprising:

a headset circuitry receiving an input voltage; and

a shutoff circuit placing the headset circuitry in a lower power consumption state when a headset load current falls below a threshold value for a predetermined amount of time.

25. (original) The system of claim 24 wherein placing the headset circuitry in a lower power consumption state comprises terminating the input voltage to the headset circuitry.

26. (original) The system of claim 24, further comprising:

a power supply providing the input voltage to the headset circuitry, the power supply comprising:

a direct current (DC) voltage source supplying power; and

a voltage converter circuit converting the power to the input voltage supplied to the headset circuitry, the voltage converter circuit varying the input voltage in response to changes to a headset load current drawn by the headset circuitry from the power supply.

27. (original) The system of claim 24, wherein the shutoff circuit further comprises:

a band pass filter having an input signal based on a measured headset load current and an output signal that is compared to the threshold value.

28. (original) The system of claim 27, wherein the shutoff circuit comprises:

a comparator comparing the threshold value to a filter output based on the measured headset load current; and

a timer reset circuitry sending a signal to place the headset circuitry in a lower power consumption state.

29. (original) The system of claim 26, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry linearly, in proportion to changes in the headset load current.

30. (original) The system of claim 26, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry in discrete steps in response to changes in the headset load current.

31. (original) The system of claim 26, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry at a first rate in response to increasing headset load current and a second rate for decreasing headset load current.

32. (currently amended) The system of claim ~~43~~ 26, further comprising:

a voltage control loop circuitry monitoring the headset load current and the input voltage, the voltage loop circuitry providing a feedback signal to the voltage converter circuitry.

33. (original) The system of claim 24 wherein the headset circuitry comprises:

an ANR circuit receiving a signal from a microphone positioned in an earcup and including a feedback loop to actively reduce the signal;

a first voltage regulator limiting a voltage supplied to the ANR circuit and to an amplifier to a first predetermined voltage; and

a second voltage regulator limiting the input voltage of the headset circuitry to a second predetermined voltage.

34. (original) The system of claim 26, further comprising an energy storage device in a parallel circuit with the DC voltage source.

35. (original) The system of claim 34, wherein the energy storage device is a capacitor.

36. (original) An active noise reduction (ANR) headset comprising:

a headset circuitry receiving an input voltage; and

a power supply circuitry means providing the input voltage to the headset circuitry.

37. (original) The system of claim 36, further comprising:

a shutoff circuit means terminating the input voltage to the headset circuitry.

38. (original) A power supply for an active noise reduction headset, comprising:

a direct current (DC) voltage source supplying power; and a voltage converter circuit converting the power to the input voltage supplied to the headset circuitry, the voltage converter circuit varying the input voltage in response to changes to a headset load current drawn by the headset circuitry from the power supply.

39. (original) The power supply of claim 38, further comprising:

a shutoff circuit placing the headset circuitry in a lower power consumption state when the headset load current falls below a threshold value for a predetermined amount of time.

40. (original) The power supply of claim 39, wherein placing the headset circuitry in a lower power consumption state comprises terminating the input voltage to the headset circuitry.

41. (original) The power supply of claim 39, wherein the shutoff circuit further comprises:

a band pass filter having an input signal based on a measured headset load current and an output signal that is compared to the threshold value.

42. (original) The power supply of claim 39, wherein the shutoff circuit comprises:

a comparator comparing the threshold to a filter output based on the measured headset load current; and

a timer reset circuitry sending a signal to place the headset circuitry in a lower power consumption state.

43. (original) The power supply of claim 38, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry linearly, in proportion to changes in the headset load current.

44. (original) The power supply of claim 38, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry in discrete steps in response to changes in the headset load current.

45. (original) The power supply of claim 38, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry at a first rate in response to increasing headset load current and a second rate for decreasing headset load current.

46. (original) The power supply of claim 38, further comprising:

a voltage control loop circuitry monitoring the headset load current and the input voltage, the voltage loop circuitry providing a feedback signal to the voltage converter circuitry.

47. (original) The system of claim 38, further comprising an energy storage device in a parallel circuit with the DC voltage source.

48. (original) The system of claim 47, wherein the energy storage device is a capacitor.

49. (original) A power supply for an active noise reduction headset circuit, comprising:

a shutoff circuit placing the headset circuitry in a lower power consumption state when a headset load current falls below a threshold value for a predetermined amount of time.

50. (currently amended) The power supply of claim 49, wherein placing the headset circuitry in a lower power consumption state comprises terminating the input voltage to a headset circuitry.

51. (original) The power supply of claim 49, further comprising:

a direct current (DC) voltage source supplying power; and a voltage converter circuit converting the power to the input voltage supplied to the headset circuitry, the voltage converter circuit varying the input voltage in response to changes to a headset load current drawn by the headset circuitry from the power supply.

52. (original) The power supply of claim 49, wherein the shutoff circuit further comprises:

a band pass filter having an input signal based on a measured headset load current and an output signal that is compared to the threshold value.

53. (original) The power supply of claim 52, wherein the shutoff circuit comprises:

a comparator comparing the threshold to a filter output based on the measured headset load current; and

a timer reset circuitry sending a signal to place the headset circuitry in a lower power consumption state.

54. (original) The power supply of claim 51, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry linearly, in proportion to changes in the headset load current.

55. (original) The power supply of claim 51, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry discretely in proportion to changes in the headset load current.

56. (original) The power supply of claim 51, wherein the voltage converter circuit adjusts the input voltage to the headset circuitry at a first rate in response to increasing headset load current and a second rate for decreasing headset load current.

57. (original) The power supply of claim 51, further comprising:

a voltage control loop circuitry monitoring the headset load current and the input voltage, the voltage control loop circuitry providing a feedback signal to the voltage converter circuitry.

58. (original) The system of claim 51, further comprising an energy storage device in a parallel circuit with the DC voltage source.

59. (original) The system of claim 58, wherein the energy storage device is a capacitor.

60. (original) A method of supplying power to an active noise reduction (ANR) headset, comprising:

measuring a load current drawn by a headset circuitry from a power supply; and

supplying an input voltage to the headset circuitry in response to the load current.

61. (original) The method of claim 60, further comprising:

placing the headset circuitry in a lower power consumption state when the headset load current falls below a threshold value for a predetermined amount of time.

62. (original) The method of claim 61, wherein placing the headset circuitry in a lower power consumption state comprises terminating the input voltage to the headset circuitry.

63. (original) A power supply, comprising:

a direct current (DC) voltage source supplying power; and a voltage converter circuit converting the power to an input voltage supplied to an external circuit, the voltage converter circuit varying the input voltage in response to changes to a load current drawn by the external circuit from the power supply.

64. (original) The power supply of claim 63, further comprising:

a shutoff circuit placing the external circuit in a lower power consumption state when the load current falls below a threshold value for a predetermined amount of time.

65. (original) A power supply, comprising:

a shutoff circuit placing an external circuit in a lower power consumption state when a load current, drawn from the external circuit by the power supply, falls below a threshold value for a predetermined amount of time.

66. (original) The power supply of claim 65, further comprising:

a direct current (DC) voltage source supplying power; and a voltage converter circuit converting the power to an input voltage supplied to the external circuit, the voltage converter circuit varying the input voltage in response to changes to a load current drawn by the external circuit from the power supply.